



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,664	07/28/2003	Atsushi Takahashi	003913.106076	5235

29540 7590 09/13/2006

PITNEY HARDIN LLP  
7 TIMES SQUARE  
NEW YORK, NY 10036-7311

EXAMINER
----------

MANAHAN, TODD E

ART UNIT	PAPER NUMBER
----------	--------------

3732

DATE MAILED: 09/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

8

<b>Office Action Summary</b>	<b>Application No.</b> 10/628,664	<b>Applicant(s)</b> TAKAHASHI, ATSUSHI	
	<b>Examiner</b> Todd E. Manahan	<b>Art Unit</b> 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1, 2 and 4-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-8, 10, 12-17, 19-20 is/are rejected.
- 7) ☒ Claim(s) 9 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 7, 17, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Rakocz (United States Patent No. 6,276,934).

Rakocz discloses a dental mirror comprising a reflector 28 having a light transmitting aperture 24 in the center thereof and a CCD camera secured to the back of the reflector adjacent to and in optical communication with the light transmitting aperture. Images from the camera are then displayed on a monitor. The device may also include an optical fiber (see col. 6, lines 56-65) and a conduit for air (see col. 7, lines 19-25) and a light source 38.

Claim 12 is rejected under 35 U.S.C. 102(b) as being anticipated by Moore (United States Patent No. 3,884,222).

Moore discloses a mirror including a reflector 121 having a light transmitting aperture 127 in portion thereof and an optical fiber 151 having one end connected to the back of the reflector in such a manner that an incident portion and an illumination portion coincide each other at the light transmitting aperture. The other end of the optical fiber is in optical communication with a CCD camera and illumination light source for inputting an image in the field of view obtained at the incident portion. The camera is located external to the dental mirror and the

Art Unit: 3732

optical fiber is removably attached thereto (see col. 4, line 66 through col. 5, line 5). A visual monitor is provided to display image data received from the camera.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rakocz in view of Mandelkern et al. (United States Patent Publication No. 2003/0228553).

Rakocz discloses the invention essentially as claimed except for the transmitter for transmitting images from the CCD camera. Mandelkern et al. disclose a dental camera having a transmitter so as to be operable in a wireless mode. It would have been obvious to one skilled in the art to provide the camera of Rakocz with a transmitter in view of Mandelkern et al. in order to permit the device to operate in a wireless mode.

Claims 6 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rakocz in view of Spoonhower et al. (United States Patent Publication No. 2002/0118279).

Rakocz discloses the invention essentially as claimed except for the monitor being "hand mirror shaped". Spoonhower et al. discloses a dental camera having a monitor sized so as to fit in the hand and thus is deemed to be "hand mirror shaped". It would have been obvious to one skilled in the art to make the monitor of Rakocz "hand mirror shaped" in view of Spoonhower et al. in order to make the system readily portable.

Art Unit: 3732

Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rakocz in view of Mandelkern et al., as applied to claim 3 above, and further in view of Spoonhower et al.

Spoonhower et al. discloses a dental camera having a monitor sized so as to fit in the hand and thus is deemed to be "hand mirror shaped". It would have been obvious to one skilled in the art to make the monitor "hand mirror shaped" in view of Spoonhower et al. in order to make the system readily portable.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moore in view of Salvati et al. ( United States Patent No. 5,373,317).

Salvati et al. disclose a device wherein an optical fiber connects to a camera located on the front of a monitor. It would have been obvious to one skilled in the art to mount the camera of Moore on the front of the monitor in view of Salvati et al. in order to make the device compact and readily portable.

Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moore in view of Lake (United States Patent No. 5,951,284).

Moore discloses the invention essentially as claimed except for the air injection hose and the suction hose connected to a vacuum source. Lake discloses a dental mirror having both air and suction hoses to permit suction removal of debris and saliva from the patient's mouth and the mirror surface (see col. 2, lines 50-54). It would have been obvious to one skilled in the art to provide the device of Moore with an air injection and a suction hose and vacuum source in view of Lake in order to permit suction removal of debris and saliva from the patient's mouth and the mirror surface.

Art Unit: 3732

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rakocz in view of Mandelkern et al., as applied to claim 3 above, and further in view of Harvey et al. (United States Patent No. 4,568,281).

Harvey et al disclose a dental mirror provided with a heater to prevent condensation on the mirror surface. It would have been obvious to one skilled in the art to provide the mirror with a heater in view of Harvey et al. in order to prevent condensation on the mirror surface.

***Allowable Subject Matter***

Claims 9 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 18 is allowed.

***Response to Arguments***

Applicant's arguments filed 26 June 2006 have been fully considered but they are not persuasive.

In response to applicant's arguments that the camera of Rakocz is not "adjacent and in optical communication with the aperture" because the camera is located in the handle of the mirror, it is to be noted that the term "adjacent" merely means "close to". Clearly being located in the handle of the mirror makes the camera "close to" the light transmitting aperture.

Applicant's arguments with respect to claims 12-15 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Todd E. Manahan whose telephone number is 571 272- 4713. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on 571 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3732

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Todd E. Manahan  
Primary Examiner  
Art Unit 3732

T.E. Manahan  
7 September 2006

A handwritten signature in black ink, appearing to read 'T.E. Manahan', with a long horizontal line extending to the right.